(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 14 April 2005 (14.04.2005)

PCT

(10) International Publication Number WO 2005/033287 A2

(51) International Patent Classification7:

C12N

(21) International Application Number:

PCT/US2004/032407

(22) International Filing Date:

29 September 2004 (29.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/507,220

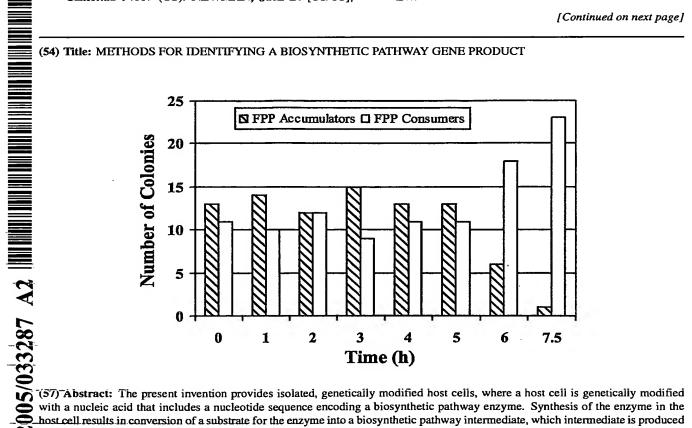
29 September 2003 (29.09.2003) US

- (71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFOR-NIA [US/US]; 1111 Franklin Street, 12th Floor, Oakland, California 94607-5200 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): REILING, Keith Kinkead [US/US]; 1055 Oak Street, San Francisco, California 94117 (US). NEWMAN, Jack D. [US/US];

1715 Sacramento Street, Berkeley, California 94702 (US). WITHERS III, Sydnor T. [US/US]; 1670 San Benito Street, Richmond, California 94804 (US). PITERA, Douglas J. [US/US]; 4099 Howe Street, Unit #302, Oakland, California 94611 (US). KEASLING, Jay D. [US/US]; 1160 Sterling Avenue, Berkeley, California 94708 (US). MARTIN, Vincent J.J. [CA/US]; 263 Lake Drive, Kensington, California 94708 (US).

- (74) Agent: BORDEN, Paula A.; BOZICEVIC, FIELD & FRANCIS LLP, 1900 University Avenue, Suite 200, East Palo Alto, California 94303 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]



with a nucleic acid that includes a nucleotide sequence encoding a biosynthetic pathway enzyme. Synthesis of the enzyme in the host cell results in conversion of a substrate for the enzyme into a biosynthetic pathway intermediate, which intermediate is produced in an amount effective to inhibit growth of the genetically modified host cell. The present invention further provides compositions and kits comprising a subject genetically modified host cell. Subject host cells are useful for identifying a gene product having activity in a biosynthetic pathway. The present invention further provides methods of identifying a gene product having activity in a biosynthetic pathway.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.